**Beulah Reservoir #10217**

**Introduction**

Beulah Reservoir Allotment (10217) is designated as an Improve (I) allotment located in the northwest corner of Malheur County (see Map 1). The allotment has two areas of use. The first area is around the south end of Beulah Reservoir on the both sides of the North Fork Malheur River approximately 15 miles northwest of Juntura, Oregon. The second area of use is in Cottonwood Creek Area and is located approximately 24 miles to the northwest of Juntura on the western side of the North Fork Malheur River. Improve (I) category allotments are managed to improve current unsatisfactory resource conditions and will receive the highest priority for funding and management actions.

The original Beulah Reservoir Allotment (MFP, 1979) was divided into three allotments in 1988 (Calf Creek #00162, Agency Mountain #00161, and Beulah Reservoir Allotments #10217). In the RMP, the Beulah Reservoir Allotment contained a pasture named the East MJ Field. During field surveys in 1999, it was determined that this pasture was actually part of the Little Malheur Pasture of the Whitley Canyon Allotment #10216.

In the 1990s, the Scab Pasture was divided into two pastures. The southern portion was designated as the McClellan Pasture, and the northern portion retained the name Scab Pasture.

Authorization to graze livestock on public land within is held by three grazing permittees:

| Operator | Active Authorization (AUMs) | Suspended Authorization (AUMs) |
|---|---|---|
| Hammond Ranch | 60 | 0 |
| Anthony Joyce | 931 | 0 |
| Mark Joyce | 991 | 0 |

The 19,627 acre allotment is currently comprised of twenty-one pastures, of which 61% is BLM administered land. The season of use on this permit is identified as 3/15 to 10/31.

| Pasture | BLM | Private | Other | Total |
|---|---|---|---|---|
| Antelope (1)* | 1517 | 1632 | 594 | 3743 |
| Lower Poverty (2) | 703 | 14 | | 717 |
| Upper Poverty (3) | 1080 | 58 | | 1138 |
| Moonshine (4) | 1000 | 49 | | 1049 |
| Jack Creek (5) | 2016 | 0 | 9 | 2025 |
| Big Seeding (6) | 220 | 22 | 299 | 541 |
| Burnt Field (7) | 309 | 0 | | 309 |
| Scab (8) | 648 | 235 | 36 | 919 |
| Little Seeding (9) | 93 | 18 | 40 | 151 |
| West MJ Field (10) | 875 | 789 | | 1664 |
| River Field (11) | 410 | 313 | | 723 |

| | | | | |
|---|---|---|---|---|
| Bennett (13) | 386 | 0 | | 386 |
| Poverty Flat (14) | 87 | 782 | | 869 |
| Mud Springs (15) | 4 | 313 | | 317 |
| Horse (16) | 10 | 211 | | 221 |
| Upper Creek (17) | 83 | 556 | | 639 |
| Creek (18) | 856 | 270 | | 1126 |
| North Homestead (20) | 1348 | 798 | | 2146 |
| McClellan | 328 | 111 | | 439 |
| Total | 11973 | 6171 | 978 | 19,122 |

* number in parentheses indicates the pasture number for administrative purposes

**Current Situation/Previous Management**

The allotment does not have a management plan (AMP). Grazing in the Beulah Allotment will be in accordance with a grazing schedule determined in a meeting with BLM representative prior to turnout. The grazing schedule for the allotment is identified below.

| **Pasture** | **Year 1** | **Year 2** | **Year 3** |
|---|---|---|---|
| Antelope | 6/15-10/31 | 6/15-10/31 | 7/1-10/31 |
| Lower Poverty | 4/1-5/15 | Rest | 4/1-5/15 |
| Upper Poverty | 5/16-7/1 | Rest | 5/16-7/1 |
| Moonshine | 3/20-5/1 | 3/20-5/1 | 4/1-5/1 |
| Jack Creek | 3/15-6/1 | 3/15-6/1 | 3/15-5/1 |
| Big Seeding | 5/1-6/15 | Rest | 4/1-6/15 |
| Burnt Field | Rest | Rest | 3/15-6/1 |
| Scab | 3/15-5/1 | 3/15-5/1 | 3/15-5/1 |
| Little Seeding | Rest | 5/1-6/15 | Rest |
| West MJ Field | 7/1-10/31 | 7/1-10/31 | 7/1-10/31 |
| River Field | Rest | Rest | Rest |
| Bennett | 4/1-6/15 | 4/1-6/15 | Rest |
| Poverty Flat | FFR | | |
| Mud Springs | TU AGREE | | |
| Horse | TU AGREE | | |
| Upper Creek | TU AGREE | | |
| Creek | TU AGREE | | |
| North Homestead | TU AGREE | | |
| McClellan | 4/1-5/1 | 5/1-6/1 | 3/15-5/1 |

TU AGREE = Trade Use Agreement for management of private land along the North Fork Malheur River.

The Southeastern Oregon Resource Management Plan (SEORMP) includes management considerations for 127.4 animal unit months (AUMs) for deer in summer and winter, 2.1 AUMs of summer pronghorn use, and 129.5 AUMs for elk in summer and winter. Cattle are the only authorized livestock on the allotment with 2560 active AUMs and no suspended AUMs. Livestock grazing in River Field is administered in concurrence with

USFWS and adheres to Terms and Conditions of the Biological Opinion for Grazing Activities on North Fork Malheur River Allotments (2001).

The projects in this allotment are listed below with the pasture that they are located in indicated by a number in parentheses behind the project name.

| Project | JDR # | Condition | Maintenance Needed |
|---|---|---|---|
| Hard Way Pit Reservoir (1) | 6216 | Good | Abandon (JUOC) |
| Poverty Flat Spring (2) | 1738 | Poor | Yes (trough) |
| Grasshopper Spring (3) | 4281 | Poor | Yes (JUOC) |
| Hump Pit Reservoir (3) | 6212 | Fair | No |
| Moonshine Spring (4) | 5125 | Fair | No |
| TJ Spring (4) | 1737 | Good | No (JUOC) |
| Morley Reservoir (5) | 6162 | Poor | Yes (seal) |
| unnamed Spring (5) | None | Poor | Yes |
| Jack Spring (5) | None | Fair | No (JUOC) |
| Crickett Spring* | 4254 | Fair | unknown |

* This project is located outside the allotment boundary, but it associated to this allotment in the JDR system. The location of the headbox is unknown

**DATA SUMMARY**
Aspects of resource conditions in Beulah Reservoir Allotment were evaluated by an interdisciplinary team during portions of 2000 to 2003. Data forms, photographs and written records are on file in the Vale District office.

**Archaeology**
This allotment was part of the Malheur Indian Reservation in the mid to late 1800's that formerly covered about 1.6 million acres. It is general policy of the BLM to notify the Burns Paiute Tribe of actions that may affect Native American values and resources.

There have been no systematic surveys for prehistoric and/or historic cultural resources in this allotment. Surveys for cultural resources are conducted at locations where surface disturbing projects have been proposed.

**Minerals**
Geology of the Beulah Reservoir Allotment is generally Miocene lucustrine and fluvial sediments with lesser amounts of Miocene basalt and andesite flows, and Quaternary alluvial deposits. No mining claims or other mineral exploration or extraction operations are currently active.

**Weeds**
Scattered sites of Scotch thistle and whitetop occur within the allotment, especially associated with roadways. Cheatgrass is abundant, and medusahead is establishing.

Private land near the north end of Beulah Reservoir has perennial pepperweed establishing in pastures and hayfields. The landowner and Malheur County started

treating those infestations in 2003. Allotments abutting the reservoir are all at risk for invasion by pepperweed.

**Western Juniper**
There has been an increase of young to mature western juniper possibly due to a lack of wildfire, historic grazing, and/or climatic changes. There was no assessment of stand densities, acreages, and current or long-term effects of this increase. There has been no authorized western juniper control in this allotment. There are inclusions of old growth western juniper in rock outcroppings that are not vulnerable to burning.

Aspen stands within this allotment are lacking in regeneration, with some areas being encroached upon by western juniper and other conifers.

Mountain mahogany stands in the Beulah Allotment are predominantly decadent with poor recruitment and conifer encroachment occurring in many areas.

**Forestry**
The Beulah Allotment contains two pastures with forestry issues; North Homestead and Antelope Pastures. There has been a substantial increase in understory vegetation, primarily conifers, consisting of western juniper, young pine, and Douglas fir. BLM completed a forest inventory of these areas in1999 which identified basal areas in the range of 40 $Ft^2$/Ac to 170 $Ft^2$/ Ac, and tree densities of 140-1600 per/acre. The prescribed basal area for this stand type would range between a lower management zone (LMZ) of 60 $ft^2$/ac. to an upper management zone (UMZ) of 100 $ft^2$/ac (Cochran et al. 1999). This increased density has impacted forest health by greatly increasing inter-tree competition, which results in individual tree stress and predisposes individual trees as well as the stand to outbreaks of disease, insect infestations and general mortality.

**Fisheries**
The North Fork Malheur River sustains an isolated population of bull trout, a species listed as Threatened under the Endangered Species Act (ESA). Bull trout migrate between headwater tributaries on Malheur National Forest, where they spawn in the fall, and Beulah Reservoir. Spawning does not occur within BLM ownership nor do records indicate that bull trout spawned historically here. However, migratory and possibly rearing habitat is present on BLM reaches of the river. Total bull trout numbers for the North Fork Malheur River were estimated in 1991-92 to be about 4000 fish (Buchanan et al. 1997) and, based on recent Oregon Department of Fish and Wildlife redd counts and trapping efforts, numbers have probably increased. However, because this bull trout subpopulation is not connected with other subpopulations, opportunities for recolonization do not exist and the subpopulation is considered by US Fish and Wildlife Service (USFWS) to be functioning at risk. Livestock grazing in pastures on the North Fork Malheur River is administered in concurrence with USFWS and adheres to Terms and Conditions of the Biological Opinion for Grazing Activities on North Fork Malheur River Allotments (2001).

Other fish species that occur in the North Fork Malheur River within Beulah Allotment

include redband trout, mountain whitefish, large-scale and bridgelip suckers, redside shiners, speckled dace, and sculpins. These species are abundant and are not in jeopardy.

**Wildlife**
The allotment is important summer and winter habitat for three big game species, mule deer, pronghorn and elk, due to its variety of vegetation types, steep slopes, and hiding cover. It is also summer habitat for many species of neotropical migratory bird species that utilize the mountain shrub and western juniper communities. Resident wildlife includes coyote, chukar, quail, rodents, and several species of reptiles.

**Special Status Species**
No species of plants listed under the Endangered Species Act or any special status plant species are known to occur or are suspected in this allotment.

Along the North Fork Malheur River, this allotment contains migratory habitat for bull trout, listed as Threatened under the ESA (see Fisheries), and habitat for Columbia spotted frogs, a Candidate species for listing.

Other special status animal species known or suspected include western toads, American white pelican, Barrow's goldeneye, bufflehead, ferruginous hawk, loggerhead shrike, northern bald eagle, northern goshawk, northern pygmy owl, pileated woodpecker, snowy egret, Swainson's hawk, western bluebird, western burrowing owl, sage grouse, pygmy rabbit, and northern sagebrush lizard.

**Land Tenure Adjustments and Access**
The allotment is located within Retention/Acquisition Zone 1. Public land in Zone 1 may be disposed of only through exchange for other Zone 1 lands with high resource values. Any ownership consolidation proposals would need to be in conformance with the provisions contained in the General Management Criteria found in Appendix L of the SEORMP.

No access easements are held by BLM in this grazing allotment. BLM has identified a need to acquire road easements in sec. 13, T. 19 S., R. 37 E., in the Poverty Flat area.

**Recreation, Visual Resources and Wild and Scenic Rivers**
Recreational use on BLM is limited predominately to dispersed hunting of big and small game in the fall/early winter, and to dispersed fishing and hiking within the North Fork Malheur River corridor upstream of Beulah Reservoir, spring through fall.

In 1988, the federal lands within a half mile of the NF Malheur River between Beulah Reservoir and the Malheur National Forest administrative boundary were congressionally designated a study river under authority of the National Wild and Scenic Rivers (NWSR) Act. Much of the study river is within the Beulah allotment. BLM's assessments of this study river for its eligibility and suitability are collectively documented in the *North Fork Malheur River Final Eligibility Study Report for the National Wild and Scenic Rivers System* (September, 1993), and the *Southeastern Oregon Resource Management Plan and*

*Record of Decision* (September, 2002) and its supporting Administrative Record. A total of 3.6 miles of BLM-administered public lands of the study river are determined to be both eligible and administratively suitable for congressional designation with a tentative "wild" river management classification. Also, a short segment of the congressional study river (administered by the federal Bureau of Reclamation) within the allotment just upstream of Beulah Reservoir was determined eligible but not administratively suitable as a possible component of the National Wild and Scenic Rivers System. The outstandingly remarkable values of the eligible study river segments are scenery, recreational, fish and wildlife (refer to the above-mentioned BLM September, 1993 document for detailed information). Until Congress takes action on the determined administratively suitable half-mile wide study river corridor segments, BLM is required by the NWSR Act to provide interim protection of its outstandingly remarkable river values (refer to BLM Manual 8351 for NWSR interim management guidelines). Uses within these administratively suitable river corridor segments are restricted or excluded where such uses are determined to degrade the outstandingly remarkable values.

Public lands within the allotment are a mix of visual resource management (VRM) classes I, II, III and IV. Each class area is administered in a manner to meet its respective VRM objective. The objectives are described in Appendix J of the *Southeastern Oregon Resource Management Plan and Record of Decision.*

**Area of Critical Environmental Concern**

The portions of this allotment within the North Fork Malheur River corridor are included in the North Fork Malheur River Area of Critical Environmental Concern (ACEC), which was designated as an ACEC in the SEORMP (2002). Relevant and important values identified in the ACEC include scenery, two special status fish and their habitat (redband trout and bull trout), and a special status amphibian and habitat (Columbia spotted frog). Specific management for this area is found in the SEORMP and includes provisions for OHV use, mineral activities, visual resource management, livestock grazing, and project work.

**Projects**

In this allotment, there are three reservoir developments, seven spring developments, and numerous fences. At the time of inspection, two reservoirs and six springs required maintenance to function to bureau specifications. While fences were not formally inspected for this evaluation, many were in disrepair.

**Fire**

The allotment is represented by five historic fire regimes; Fire Regime I (0-35 year fire return interval with low fire severity) which is represented by the Ponderosa pine/Douglas fir stands; Fire Regime II (35 to 100 year fire return interval with mixed and high severity fire) which is represented by the mountain big sagebrush/perennial grassland communities; Fire Regime III (35-100 year fire return interval with mixed severity fires) which is represented by the Wyoming big sagebrush/perennial grassland communities; Fire Regime IV (100 to 150 year fire return interval with high severity fires) which is represented by the stiff sagebrush communities; and Fire Regime V (200+

year fire return interval with high severity fires) which is represented by relic western juniper stands in "fire-safe" (ex. rocky knobs) locations.

The allotment is dominated by Fire Regime Condition Class (FRCC) 2 and 3 due to invasive plant species, mainly western juniper and annual grasses. These condition classes represent a potential risk for loss of key ecosystem components (desirable native vegetation and soil).

**Analysis and Findings – Rangeland Health Assessments**
Detailed results of the field evaluations are retained in the allotment files in the Vale District office.

**Antelope Pasture**

Vegetation Communities: Antelope pasture supports two primary communities: a ponderosa pine/Douglas fir/elk sedge mosaic and a low sagebrush/mountain big sagebrush/grassland mosaic.

Upland Trend: There is one trend plot in this pasture which showed static to upward trend in both the short and long terms.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met in both vegetation types.

Standard 2 (Riparian Function): There are no riparian areas identified in this pasture.

Standard 3 (Ecological Processes): The standard was met in both vegetation types, although there was a deviation in the ponderosa pine/Douglas fir/elk sedge type in the amount of litter expected and decadent stands of mountain mahogany and bitterbrush within the mosaic units.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 1.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was met in the sagebrush communities, but was not met in the forested communities within this pasture. Livestock and wildlife browse of bitterbrush, aspen, and mahogany is potentially limiting regeneration and habitat quality for wildlife. Western juniper encroachment and forest health are also issues in this pasture.

**Lower Poverty Pasture**

Vegetation Communities: This pasture supports one primary community: Wyoming big sagebrush/perennial grassland with inclusions of western juniper.

Upland Trend: There is one trend plot in this pasture which shows downward trends in both the short and long terms.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): The standard was met at Poverty Spring.

Standard 3 (Ecological Processes): The standard was not met in the pasture due to lack of key perennial grass species which have been and are being replaced by cheatgrass, western juniper, and gray rubber rabbitbrush.

Standard 4 (Water Quality): The standard was met.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met due to current grazing, annual grass, and western juniper invasion in the sagebrush community. Riparian habitats for terrestrial species were meeting standards.

**Upper Poverty Pasture**

Vegetation Communities: There is one primary community identified for this pasture: mountain big sagebrush/bitterbrush/perennial grassland.

Upland Trend: There is one trend plot in this pasture which showed a static trend in both the short and long terms.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): The standard was not being met on Grasshopper Spring due to incorrect development design and livestock impacts to the spring source.

Standard 3 (Ecological Processes): The standard was not met due to invasion of western juniper, increase of big sagebrush, and decrease of bluebunch wheatgrass in the pasture.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the sagebrush/bitterbrush/perennial grassland community due to encroachment of annual grass and western juniper. The presence of cheatgrass in this pasture may limit the use of fire for western juniper control. The area supports deer, elk, and marginal songbird habitat. Riparian habitats for terrestrial species were not meeting standards due to incorrect development design and livestock impacts to Grasshopper Spring.

## Moonshine Pasture

Vegetation Communities: There are two primary communities in this pasture: Wyoming big sagebrush/annual grassland and Wyoming big sagebrush/perennial grassland.

Upland Trend: There is one trend plot in this pasture which could be assessed only for a long term trend, which was downward from 1982 to 2001.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was not met in the Wyoming big sagebrush/annual grassland community due to invasion of western juniper, lack of perennial native grasses, and bare soil vulnerable to sheet erosion. The standard was met in the Wyoming big sagebrush/perennial grassland community.

Standard 2 (Riparian Function): The standard is being met at Jack Spring and the drainage below the spring although western juniper encroachment was identified as a threat to the riparian area. The standard is not being met at Moonshine Spring and in the drainage below the spring due to a lack of riparian species vegetation with root masses capable of providing good bank stability. Contributing factors to this condition are current and historic livestock grazing, a reservoir development near the spring, wildlife browsing, and western juniper encroachment

Standard 3 (Ecological Processes): In both the Wyoming big sagebrush/annual grassland and Wyoming big sagebrush/perennial grassland communities the standard was not met due to cheatgrass and western juniper invasion.

Standard 4 (Water Quality): The standard was not met due to not meeting Standards 1 and 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the sagebrush communities due to grazing and western juniper proliferation in riparian and lower elevation areas of the pasture. Bitterbrush was heavily browsed at the lower elevations, where western juniper trees are abundant and understory herbaceous cover is lacking. This area is important year-long habitat for deer, elk, and neo-tropical migratory birds. Riparian habitats for terrestrial species were not meeting standards due to a lack of riparian species vegetation with root masses capable of providing good bank stability at Moonshine Spring and the drainage below this spring.

## Jack Creek Pasture

Vegetation Communities: This pasture supports two primary communities: Wyoming big sagebrush/annual grassland and Wyoming big sagebrush/perennial grassland.

Upland Trend: There is one upland trend plot in this pasture which shows downward trends in both the short and long terms.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was not met in either community due to invasion of western juniper, lack of perennial native grasses, lack of vigor on the remaining native grasses, and bare soil vulnerable to sheet erosion.

Standard 2 (Riparian Function): There is one seep in Section 26 in this pasture that is meeting the standard even though there was evidence of wildlife and livestock use. There is one developed unnamed spring in Section 26 that is not meeting the standard. The standard was being met at TJ Spring although the standard on the drainage below the spring was not being met due to bank instability, lack of woody debris in channel, and lack of riparian vegetation on banks. Contributing factors to this condition were historic livestock grazing, historic road encroachment, western juniper encroachment, and the return flow from the spring development at the top of the drainage.

Standard 3 (Ecological Processes): In the Wyoming big sagebrush/annual grassland and Wyoming big sagebrush/perennial grassland communities the standard was not met due to cheatgrass and western juniper invasion which limit site functionality.

Standard 4 (Water Quality): The standard was not met due to not meeting Standards 1 and 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met due to grazing in the sagebrush communities in this pasture. Cheatgrass and western junipers in the pasture, in concert with current livestock grazing, have eliminated much of the perennial grass cover in the lower elevations of the pasture. The pasture is yearlong deer habitat, and elk winter-range. Bitterbrush stands throughout are at risk due to fire potential and increasing western juniper. Riparian habitats for terrestrial species were not meeting standards due to bank instability, lack of woody debris in channel, and lack of riparian vegetation on banks

**Big Seeding Pasture**

Vegetation Communities: There is one primary community identified for this pasture: Wyoming big sagebrush/crested wheatgrass with inclusions of western juniper and bitterbrush.

Upland Trend: There is one trend plot in this pasture. Trend on the line intercept shows downward in the short and long terms; however, the photo plot shows downward trend in the long term and static in the short term. Overall trend was assessed as static to downward in the short and long terms.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): There is one seep in this pasture in Section 33 that was not assessed. The standard was not being met on a tributary of Mud Spring Gulch due to historic livestock grazing allowing weed invasion, seeding done in area, road crossings, reservoir development at top of drainage, and wildlife browse on woody riparian species. Currently, this pasture has early spring use that seems to be contributing to some upward trend in the channel.

Standard 3 (Ecological Processes): The standard was met. However, there is heavy western juniper encroachment on the south end of the pasture.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the sagebrush community due to introduced species comprising most of the perennial grass cover. The standard was also not met in the riparian areas due to western junipers and livestock grazing. This pasture is good deer and pronghorn habitat.

**Burnt Field Pasture**

Vegetation Communities: There is one primary community in this pasture: Wyoming big sagebrush/crested wheatgrass/perennial grassland.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): The standard was met on Scab Spring although western juniper encroachment was identified as a threat to the riparian area. The standard was not met on Mud Springs Gulch and a tributary to Mud Springs Gulch due to the invasion of weeds, western juniper encroachment, and current livestock and wildlife browse on woody riparian species.

Standard 3 (Ecological Processes): The standard was met.

Standard 4 (Water Quality): The standard was not met due to the invasion of weeds, western juniper encroachment, and current livestock and wildlife browse on woody riparian species.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the sagebrush/grassland community due to the presence of cheatgrass and areas seeded with crested wheatgrass. Bitterbrush and sagebrush cover have recovered in the seeded areas, providing wildlife browse and cover. This is one of few pastures that does not currently have an upland western juniper encroachment problem at this time. Riparian habitats for terrestrial species were not meeting standards due to the invasion of

weeds, western juniper encroachment, and current livestock and wildlife browse on woody riparian species.

**Scab Pasture**

Vegetation Communities: The primary community in this pasture is Wyoming big sagebrush/annual grassland with inclusions of bitterbrush.

Upland Trend: There is one trend plot in the pasture. Trends in both the short and long terms are down.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was not met due to high density and encroachment of western juniper, decrease of key perennial grasses, and increase in cheatgrass.

Standard 2 (Riparian Function): There are several seeps that were not meeting the standard along the fence line in this pasture due to livestock impacts. Western juniper encroachment was identified as a threat to the seep areas. The standard was not being met on Mud Spring Gulch, but an upward trend in the drainage indicated that the area was recovering with the current grazing system. The standard was met on Scab Gulch.

Standard 3 (Ecological Processes): The standard was not met due to loss of key native species, western juniper encroachment, and increase of exotic annual species.

Standard 4 (Water Quality): The standard was not met due to not meeting Standards 1 and 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met due to grazing, western juniper, and annual grass invasion into the sagebrush community. Early season livestock use is benefiting riparian habitats for wildlife, but the perennial herbaceous understory has suffered. Bitterbrush is being maintained with current livestock use. Riparian habitats for terrestrial species were not meeting standards due to not meeting Standard 2. The area is utilized by pronghorn, elk, and deer.

**Little Seeding Pasture**

Vegetation Communities: There is one primary community in this pasture: Wyoming big sagebrush/crested wheatgrass.

Upland Trend: There is one photo trend plot in this pasture. Trends show downward in both the short and long terms on this plot.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): The standard was not met on Mud Springs Gulch due to the invasion of weeds, western juniper encroachment, and livestock and wildlife browse on woody riparian species.

Standard 3 (Ecological Processes): The standard was not met due to encroachment of cheatgrass, rabbitbrush, and western juniper. Wyoming big sagebrush is reinvading this seeding.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met due to seeded non-native perennial grass in the sagebrush community. The pasture has regained its sagebrush and bitterbrush cover, which are providing for the area wildlife. Riparian areas appear to have sagebrush narrowing the herbaceous community, thus are also not meeting the standard.

**West MJ Field Pasture**

Upland standards and guides assessments for Standards 1 and 3 were not conducted in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 2 (Riparian Function): There are no identified riparian areas in this pasture.

Standard 4 (Water Quality): Not applicable – no identified riparian areas in this pasture.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the Wyoming sagebrush/perennial grassland community due to western juniper invasion. There appears to have been a lack of fire in this pasture, likely due to western junipers and grazing resulting in a lack of fine fuels.

**River Field Pasture**

Vegetation Communities: Primary communities in this pasture consist of a mosaic of Wyoming big sagebrush/low sagebrush/perennial grassland with inclusions of mountain mahogany/perennial grasslands and ancient western juniper.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are four riparian trend photo points established in this pasture. The short-term trend is static and the long-term trend is upward. Riparian vegetation and the channel shape have improved since some of the photos were started in the 1970's. Through the 1990's there has not been any noticeable improvement.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): The standard was not met on the North Fork Malheur River due to a lack of riparian vegetation species on banks, excessive bank instability, and lack of vegetation on floodplain. Contributing factors to this condition were current and historic livestock grazing,

Standard 3 (Ecological Processes): The standard was met.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 2.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the ponderosa pine or sagebrush mosaic (low and Wyoming sagebrush) communities due to a combination of livestock grazing and wildlife browsing. Mountain shrub communities (mountain mahogany and bitterbrush) lacked desired reproduction. The area is important elk, deer, pronghorn, and NTMB habitat due to the variance in habitats and structure. The standard was met for aquatic species, including T&E bull trout, using habitats associated with the North Fork Malheur River. Riparian habitats for terrestrial species were not meeting standards due to not meeting Standard 2.

**Bennett Pasture**

Vegetation Communities: There is one primary community in this pasture: Wyoming big sagebrush/perennial grassland.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): There are two North Fork Malheur River tributaries that met the standard in this pasture although western juniper encroachment was identified as a threat to the riparian areas.

Standard 3 (Ecological Processes): The standard was not met due to decline of key perennial grasses, invasion of exotic annuals, and beginning encroachment of western juniper.

Standard 4 (Water Quality): The standard was met.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the Wyoming sagebrush/perennial grass community due to livestock grazing, presence of exotic annuals, and early seral species which has increased the risk of community conversion to less desired species. Riparian habitats for terrestrial species were meeting standards. Bitterbrush in this pasture is being maintained with the current grazing system.

**Poverty Flat Pasture**

No standards and guides assessments were made in this pasture because it is primarily fenced federal range.

**Mud Springs Pasture**

Vegetation Communities: There is one primary community in this pasture: Wyoming big sagebrush/perennial bunchgrass with inclusions of stiff sagebrush/Sandberg bluegrass.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): Not applicable -no identified riparian areas in this pasture.

Standard 3 (Ecological Processes): The standard was not met due to cheatgrass invasion.

Standard 4 (Water Quality): Not applicable – no identified riparian areas in this pasture.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met due to livestock grazing in the Wyoming big sagebrush/stiff sagebrush/perennial grassland mosaic community resulting in a lack of desired perennial grass species.

**Horse Pasture**

No standards and guides assessments were made for this pasture because it is composed mostly of private land.

**Upper Creek Pasture**

No standards and guides assessments were made for this pasture because it is approximately 90% private land.

**Creek Pasture**

Vegetation Communities: There is one primary community in this pasture: Wyoming big sagebrush/perennial bunchgrass with inclusions of stiff sagebrush/Sandberg bluegrass.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): There are no identified riparian areas in this pasture.

Standard 3 (Ecological Processes): The standard was not met due to lack of key perennial species, as well as cheatgrass and western juniper invasion.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 1.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the Wyoming big sagebrush/stiff sagebrush/perennial grass community due to livestock grazing. Perennial herbaceous species were lacking in this pasture. The area supports good stands of mature ponderosa pines, mountain mahogany, and western juniper that are important for wildlife cover.

**North Homestead Pasture**

Vegetation Communities: There are two primary communities in this pasture: basin big sagebrush/perennial grassland and low sagebrush/Sandberg bluegrass.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was not met in either community due to loss of key perennial species, making bare soils vulnerable to erosion.

Standard 2 (Riparian Function): There are no identified riparian areas in this pasture.

Standard 3 (Ecological Processes): The standard was not met in either community due to loss of key perennial species, invasion of exotic species and encroachment of western juniper.

Standard 4 (Water Quality): The standard was not met due to not meeting Standard 1.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the basin big sagebrush/perennial grassland or low sagebrush/Sandberg bluegrass communities due to livestock grazing and wildlife browsing. The area lacks the desired herbaceous cover found in adjacent pastures. Bitterbrush was hedged and well browsed, and soil erosion was noted.

**McClellan Pasture**

Vegetation Communities: There is one primary community in this pasture: a low sagebrush/perennial grassland community.

Upland Trend: There are no trend plots in this pasture.

Riparian Trend: There are no riparian photo points identified in this pasture.

Standard 1 (Upland Watershed Function): The standard was met.

Standard 2 (Riparian Function): The standard was met on Scab Gulch.

Standard 3 (Ecological Processes): The standard was not met due to loss of key perennial species (departure of functional/structural groups from site potential), invasion of exotic species and encroachment of western juniper.

Standard 4 (Water Quality): The standard was met.

Standard 5 (Habitat for Native, T&E and Locally Important Species): The standard was not met in the sagebrush communities due to livestock grazing and wildlife browsing. The area lacks the desired herbaceous cover found in adjacent pastures. Bitterbrush was hedged and well browsed. Riparian habitats for terrestrial species are meeting standards for terrestrial species.

**Recommendations**

1. Need to address uplands. Deferment and/or rest should be incorporated into the allotment grazing schedule. Primary issues are depleted herbaceous understories, western juniper encroachment, annual grass invasion, and browsing of bitterbrush, aspen, and mahogany coupled with a lack of regeneration.
2. Bitterbrush is very important for deer and elk, and enhancement of the native herbaceous and forb components must be considered in grazing and fuels management. Bitterbrush retention/enhancement would benefit big game, as would maintenance of western juniper stands for cover.

3. The potential exists to improve the aspen stands in the allotment by using felled western juniper as a natural barrier to wildlife and livestock.

4. Riparian areas could be improved for wildlife in the Burnt Field Pasture, as they appear to be early successional species with good probability of improvement with management.

5. Address FRCC 2 and 3 by developing treatment alternatives to emphasize restoration of vegetative composition and structure and fuels that more closely resemble conditions that would be expected under natural fire regimes. This includes determining prescriptions to treat western juniper encroachment and conversion of annual rangelands to more desirable perennial vegetation. Areas that are less departed from historic conditions could possibly be restored with a treatment of fire while areas highly departed may require mechanical treatments for restoration.

6. Reduction of invading western juniper maybe accomplished by cutting, spraying, prescribed fire and wildfire as identified in the SEORMP and consistent with other resource values. All of the riparian areas in the allotment identified western juniper encroachment as a threat to the riparian values.

7. The recommendation on the seeps in Scab Pasture was that they were not a significant enough area to try to manage for riparian. If management were to occur, the main trail through this area would have to be changed.

8. Grasshopper and Moonshine Spring developments need to have wildlife ramps installed in the troughs. They also are recommended to be correctly designed with trough placement off of the riparian area and protection provided for the spring source

9. Cricket Spring is identified in the JDR files as in Beulah Allotment. On GIS this area is an unallotted parcel of land. Within the Beulah Allotment assessment we need to determine status of the unalloted land surrounding the reservoir to the south and east.

10. Pine Reservoir JDR inspection write-up is actually for Wrong Way Pit #6217 in Cottonwood Creek Allotment. Water right is being applied for currently. Need to address recommendations of field personnel to abandon and rehabilitate area while doing this allotment assessment as it was overlooked when the C allotments were done.

11. Hard Way Pit JDR inspection write-up location is actually in Cottonwood Creek Allotment. Water right is being applied for currently. Need to address recommendations of field personnel to abandon and rehabilitate area while doing this allotment assessment as it was overlooked when the C allotments were done.

12. Morley Reservoir needs to be added to our JDR files.

13. The unnamed developed spring located T19S R37E Sec. 26 NE needs to be either added to the JDR files or removed. If the spring is added as a JDR project, then the point in the NE quarter of this section on the GIS hydro coverage needs to be updated to reflect the new project name and number.

14. One of the TJ Spring JDR inspection write-ups is actually Jack Spring. Jack Spring on the USGS tope is the southern spring, therefore, leaving TJ Spring to be the northern one. Our JDR project developments do not include a Jack Spring and the file for TJ Spring does not give a clear description of the site. Thus, in our local coverage, the spring names could match or not match the USGS topo. If there is a project marker at one of the sites, this would determine which one is in our JDR system. The form done by Bammann is for the southern spring and the form done by Rockefeller is for the northern spring.

15. Transfer Hammonds preference from Beulah Reservoir (River Field Pasture) to Whitley Canyon Allotment due to the purchase of both private land and grazing privileges on BLM lands, and also due to the land being adjacent to the Whitley Canyon Allotment. AUMs and allotment boundaries would be administratively

corrected accordingly. Modify the Trade Use Agreement on the appropriate pastures with the permittee.

16. The McClellan Pasture needs to be GPSd for acres and fence boundaries. Particularly look at the south end, in the area of Zinc Spring.

17. Administratively correct the allotment boundary to incorporate BLM lands that are identified as unallotted in GIS, located near Beulah Reservoir.

**DETERMINATION – Beulah Reservoir Allotment #10217**

**Statement of achievement or non achievement of Standards**
Standard 1 – Upland Watershed Function: Within this allotment, eighteen vegetation assessments were conducted in fourteen pastures. The standard was met in eleven of these assessments.

Standard 2 – Watershed Function Riparian/Wetland Areas: Within this allotment, eleven pastures were identified with riparian areas. The standard was met in three of these pastures.

Standard 3 – Ecological Processes: Within this allotment, eighteen vegetation assessments were conducted in fourteen pastures. The standard was met in four of these assessments.

Standard 4 – Water Quality: Assessments were done on twelve pastures in this allotment. The standard was being met on three of these pastures.

Standard 5 – Habitat for Native, T&E and Locally Important Species: Within this allotment, eighteen vegetation assessments were conducted in fifteen pastures. The standard was not met in any of these assessments.

**Statement of Conformance or Non-Conformance with Guidelines**

Guidelines for Livestock Grazing Management for OR/WA were finalized on August 12, 1997 in Standards for Rangeland Health and Guidelines for Grazing Management for Public Lands Administered in Oregon and Washington, pages 15-16. Guidelines were numbered 1-8. In determining conformance or nonconformance with Guidelines, the summary of Standards not being met due to current livestock grazing were reviewed as well as livestock practices. Where these do not conform to Guidelines, reference was given to the Guideline number that wasn't met. If all Guidelines were met, a conformance statement was made.

**Beulah Allotment -** In the Beulah Allotment, Standards that are not being met due to current livestock grazing by pasture are:

Standard 2 – Upper Poverty, Moonshine, Burnt Field, Scab, Little Seeding, and River Field Pastures.

Standard 4 – Upper Poverty, Moonshine, Burnt Field, Scab, Little Seeding, and River Field Pastures.

Standard 5 – Lower Poverty, Upper Poverty, Moonshine, Jack Creek, Big Seeding, Burnt Field, Scab, River Field, Bennett, Mud Springs, Creek, North Homestead, and McClellan Pastures.

Not meeting Standards 2, 4, and 5 has resulted in a variety of impacts including lack of riparian woody vegetation regeneration, channel and bank instability leading to loss of contributing water to the system, little reproduction in Mountain mahogany and bitterbrush communities, soil impacts from livestock trampling, noxious weed invasion reducing native perennial plants, and wildlife browsing on woody riparian species. Refer to the Summary Determinations Table below for reference to all the pastures and whether they are meeting the Standards or not.

Where Standards are not being met and it has **not** been due to current livestock grazing, other factors such as those listed under Casual Factors below have caused the assessment not to meet Standards. Livestock grazing management practices do not conform to Livestock Management Guidelines No(s) 1 and 6. All other livestock management practices conform to applicable Guidelines for Livestock Grazing Management in the Beulah Allotment.

**List of casual factors if not achieving Standards**
Historic livestock grazing, wildlife browsing, poor spring development design, reservoir development impacts, road crossings and constrainment in riparian areas, recreational use, and western juniper encroachment were identified as some of the casual factors in not achieving Standards. See individual pasture discussions above for specific details.

**Interdisciplinary review**:

| | |
|---|---|
| Jean Findley, Botanist | _____ |
| Ron Rembowski, Rangeland Management Specialist | _____ |
| Shaney Rockefeller, Soil Scientist | _____ |
| Cynthia Tait, Fish Biologist | _____ |
| Marc Pierce, Forester | _____ |
| Brandon Knapton, Wildlife Biologist | _____ |

| **Summary Determinations -** Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****) | | | | | |
|---|---|---|---|---|---|
| **Pasture Name** | **Standard 1 -** *watershed function, uplands* | **Standard 2 -** *watershed function, riparian* | **Standard 3 -** *ecological processes* | **Standard 4 -** *water quality* | **Standard 5 -** *native, T&E, or locally important species* |
| **Antelope** | Meeting | NA-no riparian identified in pasture | Meeting | N/A- no riparian identified in pasture | Not Meeting* - Upland |
| **Lower Poverty** | Meeting | Meeting | Not Meeting | Meeting | Not Meeting* - Upland<br>Meeting - Riparian |
| **Upper Poverty** | Meeting | Not Meeting* | Not Meeting | Not Meeting* | Not Meeting* - Upland or Riparian |
| **Moonshine** | Not Meeting | Not Meeting* | Not Meeting | Not Meeting* | Not Meeting* - Upland or Riparian |
| **Jack Creek** | Not Meeting | Not Meeting | Not Meeting | Not Meeting | Not Meeting* - Upland or Riparian |
| **Big Seeding** | Meeting | Not Meeting | Meeting | Not Meeting | Not Meeting* – Upland or Riparian |
| **Burnt Field** | Meeting | Not Meeting* | Meeting | Not Meeting* | Not Meeting* - Upland or Riparian |
| **Scab** | Not Meeting | Not Meeting* | Not Meeting | Not Meeting* | Not Meeting* - Upland or Riparian |
| **Little Seeding** | Meeting | Not Meeting* | Not Meeting | Not Meeting* | Not Meeting - Upland or Riparian |
| **West MJ Field** | Not Assessed | NA - no riparian identified in pasture | Not Assessed | NA - no riparian identified in pasture | Not Meeting – Upland |

| | | | | | |
|---|---|---|---|---|---|
| **River Field** | Meeting | Not Meeting* | Meeting | Not Meeting* | Not Meeting* - Upland or Riparian |
| **Bennett** | Meeting | Meeting | Not Meeting | Meeting | Not Meeting* - Upland<br>Meeting - Riparian |
| **Poverty Flat** only 87 ac. public in FFR | Not Assessed | Not Assessed | Not Assessed | Not Assessed | Not Assessed |
| **Mud Springs** | Meeting | NA- no riparian identified in pasture | Not Meeting | NA- no riparian identified in pasture | Not Meeting* - Upland |
| **Horse** | Not Assessed | Not Assessed | Not Assessed | Not Assessed | Not Assessed |
| **Upper Creek** | Not Assessed | Not Assessed | Not Assessed | Not Assessed | Not Assessed |
| **Creek** | Meeting | NA- no riparian identified in pasture | Not Meeting | NA- no riparian identified in pasture | Not Meeting* - Upland |
| **North Homestead** | Not Meeting | NA- no riparian identified in pasture | Not Meeting | Not Meeting | Not Meeting* - Upland |
| **McClellan** | Meeting | Meeting | Not Meeting | Meeting | Not Meeting* - Upland<br>Meeting - Riparian |

I have determined that the assessed Standards for Rangeland Health were not being met in Beulah Reservoir Allotment due to current livestock grazing practices. Adjustments in grazing practices will be made prior to livestock turn out in the 2005 grazing season. Any projects identified as not meeting Bureau standards will be brought up to standards prior to livestock turnout in the 2005 grazing season.

_____ _____

Malheur Field Manager Date